SONY

Broadcast and Professional Monitors

BVM-D Series

PAL area

Defining Multiformat Quality

Sony's legendary line of broadcast monitors now has a family of new additions. The BVM-D series digital monitors are optimised for a wide range of demanding applications. They are ideal for widescreen 625 monitoring as well as for high definition at both 50 and 60 Hz. These monitors also complement the emerging 24 progressive frame mastering infrastructure by directly displaying the 1080/24PsF format. The BVM-D series monitors also support a wide range of other scanning formats, with no need for a scan converter. They are capable of displaying each input signal at its native frequency and resolution with an extremely high degree of colour accuracy. And as with all Sony professional monitors, they incorporate the patented, award-winning Trinitron® system to deliver uncompromising picture quality.*

** The 1080/24PsF signal, consisting of 24 progressive frames per second, is displayed as a 48 Hz interlaced picture at the full 1920 x 1080 ('2K x 1K') resolution.*

Multiformat Support

These monitors accept the wide variety of digital signals necessary to allow you the freedom to produce in whatever format you choose.

Sony Technology

To provide the highest possible picture quality, all BVM monitors are equipped with CRTs manufactured by Sony, using EBU standard phosphors*. A new flat surface, 16:9 aspect HR Trinitron CRT was developed exclusively for the BVM-D24E1WE.

* P-22 phosphors are used in the BVM-D9H1E/D9H5E.

Functionality

This new BVM monitor series can be used in a variety of applications.

- Master monitors: BVM-D24E1WE/D20F1E
- Picture monitors: BVM-D14H1E/D14H5E/ D9H1E/D9H5E
- Field use: BVM-D9H1E/D9H5E

Line-up

A Complete line-up of Multiformat Monitors

Only Sony can provide you with a complete line-up of monitors — from 24-inch master monitors to 9-inch picture and field-use monitors — to support your diverse application needs. Continuing in the tradition of Sony's broadcast and professional monitors, these new BVM-D series monitors are designed to work side by side with your current BVM E, F and G series monitors, in one completely integrated system.

Master Monitor

- 24 and 20-inch monitors*
- Newly developed flat surface, 16:9 aspect HR Trinitron CRT for the 24-inch master monitor
- Resolution of 1000 TV lines (24-inch in 4:3/16:9 modes) and 900/700 TV lines (20-inch in 4:3/16:9 modes)

BVM-D24E1WE display unit with optional BKM-10R and BKM-34H attached

Picture Monitor

- 14 and 9-inch monitors*
- Display unit (BVM-D14H1E/D9H1E) and stand-alone (BVM-D14H5E/D9H5E) monitors for greater flexibility in system integration
- Resolution of 800/600 TV lines (14-inch in 4:3/16:9 modes) and 450/340 TV lines (9-inch in 4:3/16:9 modes)

BVM-D14H5E stand-alone monitor

Field Use

- 9-inch monitors*
- Optional lithium-ion battery packs available for added convenience
- Optional Monitor ENG kit (hood and rear protector) available
- Audio capability, built-in speaker, and simple stand for added versatility in the field (BVM-D9H5E only)

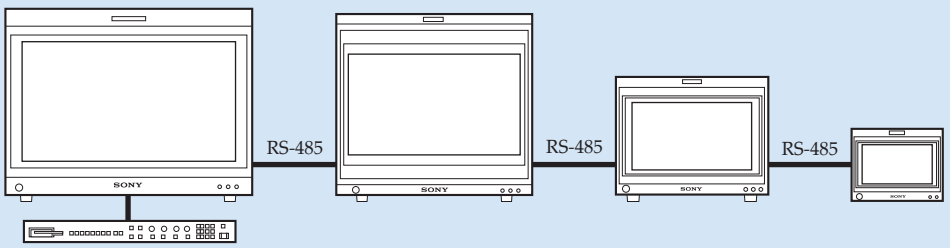
BVM-D9H5E stand-alone monitor with optional VF-508 Monitor ENG kit

* 24, 20, 14, and 9-inch refer to the CRT size. For viewable area, measured diagonally, please refer to the specifications.

Features

BVM-D Series Monitor Features

System Integration



Only the Sony BVM-D series provides you with models ranging from 9 to 24-inches that can be controlled in one completely integrated, multi-control system. And, your current E, F and G series BVM monitors can also be controlled in the same system.

- Modular design with separate display and control units
- Parallel and RS-485 serial remote control capability
- Up to 32 monitors can be controlled with one control unit
- Optional rack mounting kits

Superb Picture Reproduction

- HR Trinitron provides high resolution pictures
- EBU standard phosphors*
- Sony manufactured CRTs provide excellent colour uniformity and performance
- Beam current feedback for stable colour temperature

* P-22 phosphors are used in the BVM-D9H1E/D9H5E.

Auto Set-up Capabilities

- Built-in auto set-up system for chroma, phase, and white balance
- Precise colour temperature adjustment using external colour probes: Sony BKM-14L, Graseby SLS 9400, Minolta CA-100, Philips PM 5639, Thoma TF6
- Adjustable colour temperature (factory preset to D65)

Aspect Ratio

The BVM-D24E1WE, with its 16:9 CRT, is capable of displaying both 16:9 and 4:3 formats. The other models are all equipped with 4:3 CRTs that are also capable of displaying the 16:9 formats. 16:9 and 4:3 aspect ratio masks are supplied with all monitors except the 24-inch model.

Interchangeable 16:9 and 4:3 aspect ratio masks

Multiformat Signal Support

All of these monitors accept signals with a frequency range of 15.625 kHz to 45 kHz, and each picture signal is directly scanned from the

Acceptable Formats

System	Horizontal scanning frequency	Total lines per frame	Active lines per frame	Frame rate*1 (Hz)	Scanning format	Aspect	Standard
575/50I (PAL)	15.625	625	575	25	2:1 Interlace	16:9 / 4:3	ITU 601
480/60I (NTSC)	15.734	525	483	30	2:1 Interlace	16:9 / 4:3	ITU 601
575/50P	27.000	625	575	50	Progressive	16:9 / 4:3	—
480/60P	28.125	525	483	60	Progressive	16:9 / 4:3	SMPTE 293M
1080/24PsF*2	31.250	1125	1080	24	2:1 Interlace	16:9	—
1080/50I	31.469	1125	1080	25	2:1 Interlace	16:9	SMPTE 274M
1035/60I	33.750	1125	1035	30	2:1 Interlace	16:9	BTA S-001B
1080/60I	33.750	1125	1080	30	2:1 Interlace	16:9	SMPTE 274M / BTA S-001B
720/60P	45.000	750	720	60	Progressive	16:9	SMPTE 296M

*1 Each of the above frame rates is also compatible with 1/1.001.
*2 The 1080/24PsF signal, consisting of 24 progressive frames per second, is displayed as a 48 Hz interlaced picture at the full 1920 x 1080 ('2K x 1K') resolution.

Features

24 and 20-inch Monitor Features

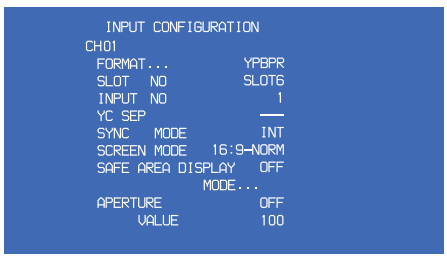
- *Flat surface, 16:9 aspect ratio HR Trinitron CRT developed specifically for the BVM-D24E1WE*
- *Optional BKM-12Y Memory Card for storage and recall of primary set-up data*
- *Safe area display, 4:3 area marker (line, translucent mat, full black mat)*
- *Data transfer between monitors using an optional BKM-12Y Memory Card or via an RS-485 link*
- *ISR (Interactive Status Reporting) for system diagnostics*
- *Built-in test signal generator for crosshatch, 100% white signal, 20% gray signal, gray scale, and PLUGE*

Flat surface, 16:9 aspect ratio HR Trinitron CRT

On-screen Menus for Adjustment and Operation

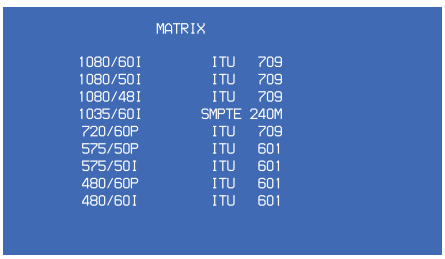
Input Configuration

Depending on the optional boards installed, the settings for the type and location of the input signals can be made from the Input Configuration menu.



Matrix Interchangeability

Depending on the input signal, one of three matrices (ITU 601, ITU 709, or SMPTE 240M) can be chosen from the Matrix menu.

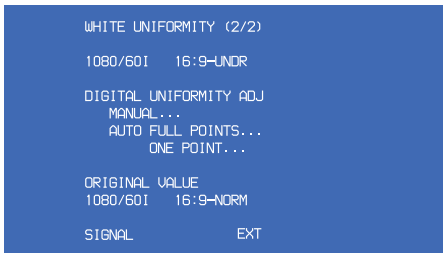


Beam Landing Correction (BVM-D24E1WE only)

The BVM-D24E1WE is capable of correcting beam landing shift which may occur as a result of the terrestrial magnetic field. This correction can be made manually or automatically, with the use of the optional BKM-14L Auto Set-up Probe.

Digital Uniformity (BVM-D24E1WE only)

White can be reproduced uniformly on every point of the screen, even in the peripheral area, through the digital uniformity circuit. This adjustment can be made manually or automatically, with the use of the optional BKM-14L Auto Set-up Probe.



Decoder and Expansion Boards for 24 and 20-inch Monitors

The BVM-D24E1WE and BVM-D20F1E are equipped as standard with Analogue Component (Y/PB/PR, GBR) input/output connectors and four option slots in the rear panel of the monitor. Depending on the particular system requirements, the most appropriate boards can simply be inserted in the option slots in the rear panel of the monitor. A range of input decoder and expansion boards, also compatible with BVM E, F and G series monitors, is available to provide many different input configurations. Although each decoder board has a primary function, when two or more boards are installed at the same time, they combine to accept a much wider range of signal inputs and standards.

BVM-D24E1WE with optional decorder and expansion boards

Separate Control and Display Units

The 24 and 20-inch monitors are designed as display units. However, an optional BKM-10R Control Unit can be easily attached to these monitors with optional attachment kits.

BVM-D20F1E with optional BKM-10R and BKM-32H attached

Input Decorder and Expansion Board Configurations

Signal format / Adaptor name		BKM-41HD HD SDI Input Adaptor	BKM-42HD HD SDI Input Adaptor	BKM-48X*1 HD Analogue Input Expansion Adaptor	BKM-20D SDI 4:2:2 Decoder Adaptor	BKM-21D SDI Multi Decoder Adaptor	BKM-22X SDI Input Expansion Adaptor	BKM-24N NTSC Decoder Adaptor	BKM-25P PAL Decoder Adaptor	BKM-26M PAL-M Decoder Adaptor	BKM-27T Tri-Standard Decoder Adaptor	BKM-28X Analogue Input Expansion Adaptor
Serial digital input	Component 525/625	-	-	-	◎	◎	○	-	-	-	-	-
	Composite NTSC	-	-	-	○	◎	○	-	-	-	-	-
	Composite PAL	-	-	-	○	◎	○	-	-	-	-	-
	HD SDI	◎	◎	-	-	-	-	-	-	-	-	-
Analogue input	Composite NTSC	-	-	○	○	◎	○	◎	○	○	◎	○
	Composite PAL	-	-	○	○	◎	○	○	◎	○	◎	○
	Composite PAL-M	-	-	○	○	○	○	○	○	◎	○	○
	Composite SECAM	-	-	○	○	○	○	○	○	○	◎	○
	Y/PB/PR 525/625	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	GBR 525/625	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	Y/C NTSC	-	-	○	-	-	-	◎	○	○	◎	○
	Y/C PAL	-	-	○	-	-	-	○	◎	○	◎	○
	Y/C PAL-M	-	-	○	-	-	-	○	○	◎	○	○
	Y/PB/PR, GBR 575/50P	◎	◎	◎	-	-	-	-	-	-	-	-
	Y/PB/PR, GBR 480/60P	◎	◎	◎	-	-	-	-	-	-	-	-
	Y/PB/PR, GBR 1080/24PsF*2	◎	◎	◎	-	-	-	-	-	-	-	-
	Y/PB/PR, GBR 1080/50I	◎	◎	◎	-	-	-	-	-	-	-	-
	Y/PB/PR, GBR 1035/60I	◎	◎	◎	-	-	-	-	-	-	-	-
	Y/PB/PR, GBR 1080/60I	◎	◎	◎	-	-	-	-	-	-	-	-
	Y/PB/PR, GBR 720/60P	◎	◎	◎	-	-	-	-	-	-	-	-
Number of digital inputs		1	2	-	3	3	3	-	-	-	-	-
Number of analogue inputs		1	1	6	3	3	3	6	6	6	6	6

*1 Equipped with floating/non-floating ground mode selector for hum reduction.

*2 The 1080/24PsF signal, consisting of 24 progressive frames per second, is displayed as a 48 Hz interlaced picture at the full 1920 x 1080 ('2K x 1K') resolution.

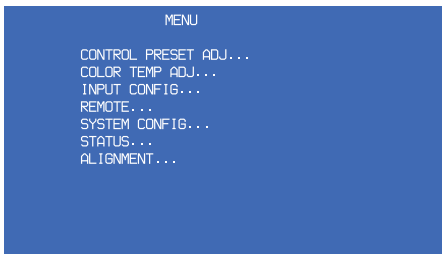
◎ Signal can be reproduced with this adaptor

○ Signal can be reproduced when combined with an appropriate decoder

Features

14 and 9-inch Monitor Features

- *4:3 area marker*
- *Conventional functions, H/V delay, Underscan, Blue only, Mono are available*
- *Equipped with three colour Tally (Red, Green, Amber: R + G)*
- *Mountable into a 19-inch EIA standard rack with optional mounting brackets*
- *Copy function enables INPUT CONFIG and SYSTEM CONFIG settings to be copied from other BVM-D14H/D9H monitors connected by serial remote*
- *Simplified menus for greater ease of use*



- *Audio capability and built-in speaker in the bottom of the monitor (BVM-D9H5E only)*
- *Equipped with simple stand (BVM-D9H5E only)*
- *Operate on three alternative power sources: AC power (supplied adaptor), external DC 12 V, optional Lithium-ion batteries BP-L60A/L90A (BVM-D9H1E/D9H5E only)*

BVM-D9H5E with AC adaptor (left) and optional BP-L60A battery pack (right)

The chart below shows the operation times of the 9-inch monitors when run on batteries. Times may vary depending on the picture, condition of the battery and temperature.

	Battery	Inserted Input Adaptor	
		Analogue Component BKM-129X	Full options (max) BKM-142HD + BKM-120D
BVM-D9H1E/ BVM-D9H5E	BP-L60A	Approx. 90 min.	Approx. 60 min.
	BP-L90A	Approx. 150 min.	Approx. 100 min.

Input Boards for 14 and 9-inch Monitors

A new series of four input boards has been developed specifically for the 14 and 9-inch BVM-D series monitors. With three option slots, these monitors are able to accept a wide variety of input signals.

BVM-D14H1E with optional input boards

HD SDI Input Adaptor

◆BKM-142HD

- 2 HD SDI signal inputs/1 monitor out
- Power consumption: 9 W
- Dimensions: 49.7 (W) x 161.4 (H) x 121.8 (D) mm ($6\,^3/_8$ x $4\,^7/_8$ inches)
- Mass: Approx. 730 g (1 lb 10 oz)

* This board occupies 2 slots

SDI 4:2:2 Input Adaptor

◆BKM-120D

- 2 D1 SDI signal inputs/2 active outputs with loop-through
- Power consumption: 4 W
- Dimensions: 24.7 (W) x 161.4 (H) x 121.8 (D) mm (1 x $6\,^3/_8$ x $4\,^7/_8$ inches)
- Mass: Approx. 310 g (11 oz)

NTSC/PAL Input Adaptor

◆BKM-127W

- 2 Analogue composite with loop-through BNC, Automatic 75 Ω termination/1 Y/C with loop-through Mini DIN 4-pin, Automatic 75 Ω termination
- Power consumption: 3 W
- Digital 3-lines Comb filter
- Dimensions: 24.7 (W) x 161.4 (H) x 121.8 (D) mm (1 x $6\,^3/_8$ x $4\,^7/_8$ inches)
- Mass: Approx. 270 g (10 oz)

Analogue Component Input Adaptor

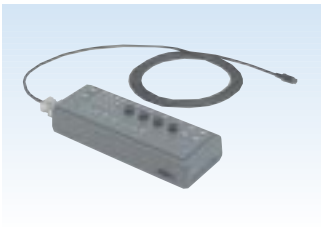
◆BKM-129X

(supplied as standard with 14 and 9-inch monitors)

- 1 Analogue component (Y/P_B/P_R, GBR) with loop-through BNC, Automatic 75 Ω termination/1 EXT SYNC with loop-through BNC, Automatic 75 Ω termination
- Power consumption: 0.5 W
- Dimensions: 24.7 (W) x 161.4 (H) x 121.8 (D) mm (1 x $6\,^3/_8$ x $4\,^7/_8$ inches)
- Mass: Approx. 250 g (9 oz)

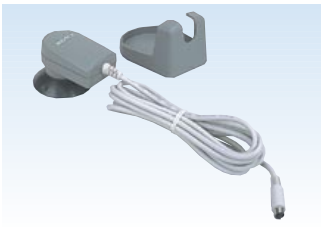
Optional Accessories

Central Control Unit
BKM-10R



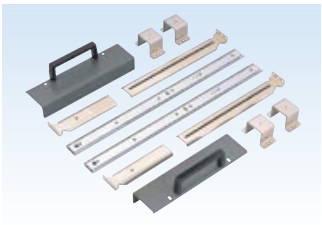
Hand-held Control Unit
BKM-11R

Memory Card
BKM-12Y

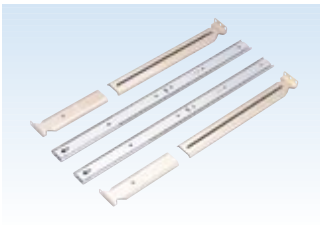


Auto Set-up Probe
BKM-14L

19-inch EIA Standard Rack Mount Kit
for 20-inch monitors
BKM-30E20



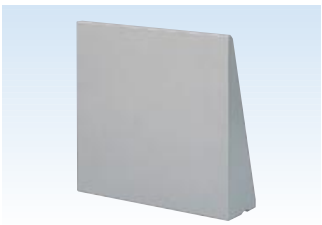
19-inch EIA Standard Rack Mount Kit
for 14-inch monitors
BKM-31E14



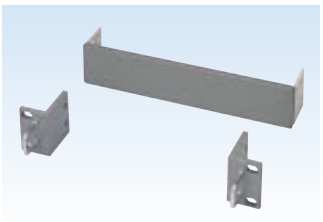
19-inch EIA Standard Rack Mount Kit
for 14-inch stand-alone monitors
BKM-30E14

Control Unit Attachment Kit
for BKM-10R with 20-inch monitor
BKM-32H

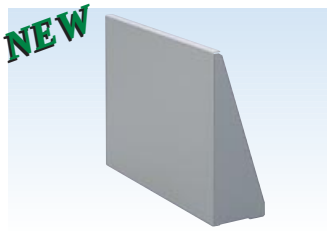
Control Unit Attachment Kit
for BKM-10R with 24-inch monitor
BKM-34H



Mounting Panel for EIA Standard Rack (5U)
for 9-inch stand-alone monitors
MB-509



19-inch Rack Mount Kit
for BKM-10R
MB-510



Mounting Panel for EIA Standard Rack (4U)
for 9-inch display unit monitors
MB-519

19-inch Rack Mount Kit
for 9-inch monitors
MB-520

Monitor ENG Kit (Hood and Rear
Protector) for 9-inch monitors
VF-508

9-pin Cable
for RS-485/422 serial remote control
RCC-5G/10G/30G

Rechargeable Lithium-ion Battery Packs
for 9-inch monitors
BP-L60A/L90A

Specifications

				BVM-D24E1WE	BVM-D20F1E
General	Signal format			15.625 kHz to 45 kHz (For more details, please refer to the Acceptable Formats table.)	
	Type			Display unit	Display unit
	Power requirements			100 to 240 V AC ± 10%, 50/60 Hz	
	Power consumption (with options)			155 W (205 W max.)	150 W (210 W max.)
	Dimensions	mm		565.5 (W) × 436.8 (H) × 587.3 (D)	444 (W) × 414 (H) × 570 (D)
		inches		22 3/8 × 17 1/4 × 23 1/8	17 1/2 × 16 3/8 × 22 1/2
	Mass			approx. 51 kg (112 lb 3 oz)	approx. 38 kg (83 lb 10 oz)
	CRT	CRT type		24-inch HR Trinitron (flat surface, 16:9 aspect)	20-inch HR Trinitron
		AG pitch		0.25 mm, 90° deflection, Ø29.1 mm in-line gun	0.30 mm, 90° deflection, Ø 30.6 mm in-line gun
		Visual screen (Viewable area, measured diagonally)	mm 4:3	361.6 (W) x 271.2 (H), (452)	386 (W) × 291 (H), (482)
			mm 16:9	482.1 (W) × 271.2 (H), (553.1)	386 (W) × 218 (H), (443)
			inches 4:3	14 1/4 x 10 3/4, (17 7/8)	15 1/4 × 11 1/2, (19)
			inches 16:9	19 × 10 3/4, (21 7/8)	15 1/4 × 8 5/8, (17 1/2)
		Phosphor		EBU	EBU
Inputs/Outputs	Video			BNC × 3, with loop-through	
		GBR		1.0 Vp-p ±6 dB, positive	
		Y		1.0 Vp-p ±6 dB, high impedance	
		PB/PR		0.7 Vp-p ±6 dB, high impedance	
	Ext sync			BNC × 1, with loop-through	
		Composite		0.3 to 8.0 Vp-p, high impedance, tri-level bipolar sync	
	Remote	OPTION		RS-232C for BKM-11R Mini DIN 8-pin	
		CONTROL UNIT		RS-422 for BKM-10R D-sub 9-pin	
		REMOTE 1/Serial remote		RS-485 serial interface, D-sub 9-pin, with loop-through	
		REMOTE 2/Parallel remote 1		D-sub 9-pin × 1 (Short to ground)	
		Parallel remote 2		Not Applicable	
		ISR		D-sub 9-pin × 1	
Video signal performance	Differential gain (DG)			Within 5% for luminance from 0 to 100 cd/m²	
	Differential phase (DP)			Within 5° for luminance from 0 to 100 cd/m²	
	Frequency response			48 Hz to 30 MHz +1 dB/-3 dB	
	DC restoration			Back porch type, back porch level: within 1% of peak luminance, 10 to 90% APL	
Synchronization	Retrace time	Horizontal		under 3.77 µsec	
		Vertical		under 650 µsec	
Raster and picture performance	Normal scan			5% over scan of the effective picture area	
	Under scan			3% under scan of the effective picture area	
	Linearity			Less than 0.5% within circle centred on the screen with a diameter equal to the vertical height, 1.0% at any other point	
	Colour temperature			D65/D93/COL 1/COL 2 (User adjustable)	
	Convergence			Less than 0.3 mm within circle centred on the screen with a diameter equal to the vertical height, 0.5 mm at any other point	
	Preset brightness			100 cd/m² (30 fL) (when a 1.0 Vp-p 100% white signal is input)	
	Stability of raster size			1% of picture height (at 100 cd/m² peak luminescence, 10 to 90% APL)	
	Scan delay	Horizontal		Approx. 3/8 line	
		Vertical		Approx. 1/2 field	
	Centre resolution			**16:9** 1000 TV lines, **4:3** 1000 TV lines	**16:9** 700 TV lines, **4:3** 900 TV lines
Operating conditions	Operating temperature			0 to 35°C (32 to 95°F) Optimum operating range 20 to 30°C (68 to 86°F)	
	Storage temperature			-10 to 40°C (14 to 104°F)	
	Humidity			30 to 85 % (no condensation)	
Others	Supplied accessories			4:3 mask*, AC cable, AC plug holder, Tally label, Fuse, Operation manual	
	Regulation compliance			EN 60950 (TÜV GS), CE: EN 55103-1+EN 55103-2+EN 60950	

* Mask is not supplied for the BVM-D24EIWE.

					BVM-D14H1E	BVM-D14H5E
General	Signal format				15.625 kHz to 45 kHz (For more details, please refer to the Acceptable Formats table.)	
	Type				Display unit	Stand-alone monitor
	Power requirements				100 to 240 V AC ± 10%, 50/60 Hz	
	Power consumption (with options)				100 W (115 W max.)	
	Dimensions			mm	346 (W) × 265 (H) × 530 (D)	482 (W) × 265 (H) × 530 (D)
				inches	13 5/8 × 10 1/2 × 20 7/8	19 × 10 1/2 × 20 7/8
	Mass				approx. 21 kg (46 lb 3 oz)	approx. 23 kg (50 lb 10 oz)
	CRT	CRT type			14-inch HR Trinitron	
		AG pitch			0.25 mm, 90° deflection, Ø 29.4 mm in-line gun	
		Visual screen (Viewable area, measured diagonally)	mm	4:3	267.5 (W) × 200.6 (H), (331.6)	
				16:9	267.5 (W) × 150.5 (H), (306.9)	
			inches	4:3	10 5/8 × 8, (13 1/8)	
				16:9	10 5/8 × 6, (12 1/8)	
		Phosphor			EBU	
Inputs/Outputs	Video				BNC × 3, with loop-through, 75 Ω auto terminated	
		GBR			1.0 Vp-p ±6 dB, positive	
		Y			1.0 Vp-p ±6 dB, high impedance	
		PB/PR			0.7 Vp-p ±6 dB, high impedance	
	Ext sync				BNC × 1, with loop-through, 75 Ω auto terminated	
		Composite			0.3 to 8.0 Vp-p, high impedance, tri-level bipolar sync	
	Remote	OPTION			RS-232C for BKM-11R Mini DIN 8-pin	
		CONTROL UNIT			RS-422 for BKM-10R D-sub 9-pin	Not Applicable
		REMOTE 1/Serial remote			RS-485 serial interface, D-sub 9-pin, with loop-through	
		REMOTE 2/Parallel remote 1			D-sub 9-pin × 1 (Short to ground)	
		Parallel remote 2			Modular connector 6-pin	
		ISR			Not Applicable	
Video signal performance	Differential gain (DG)				Within 5% for luminance from 0 to 100 cd/m²	
	Differential phase (DP)				Within 5° for luminance from 0 to 100 cd/m²	
	Frequency response				48 Hz to 24 MHz +0 dB/-3 dB	
	DC restoration				Back porch type, back porch level: within 1% of peak luminance, 10 to 90% APL	
Synchronization	Retrace time	Horizontal			under 3.77 µsec	
		Vertical			under 650 µsec	
Raster and picture performance	Normal scan				5% over scan of the effective picture area	
	Under scan				3% under scan of the effective picture area	
	Linearity				Less than 1.0% within circle centred on the screen with a diameter equal to the vertical height, 2.0% at any other point	
	Colour temperature				D65/D93/COL 1/COL 2 (User adjustable)	
	Convergence				Less than 0.4 mm within circle centred on the screen with a diameter equal to the vertical height, 0.5 mm at any other point	
	Preset brightness				120 cd/m² (35 fL) (when a 1.0 Vp-p 100% white signal is input)	
	Stability of raster size				1% of picture height (at 120 cd/m² peak luminescence, 10 to 90% APL)	
	Scan delay	Horizontal			Approx. 1/4 line	
		Vertical			Approx. 1/2 field	
	Centre resolution				**16:9** 600 TV lines, **4:3** 800 TV lines	
Operating conditions	Operating temperature				0 to 35°C (32 to 95°F) Optimum operating range 20 to 30°C (68 to 86°F)	
	Storage temperature				-10 to 40°C (14 to 104°F)	
	Humidity				30 to 85 % (no condensation)	
Others	Supplied accessories				4:3 mask, AC cable, AC plug holder, Tally label, Operation manual	
	Regulation compliance				EN 60950 (TÜV GS), CE: EN 55103-1+EN 55103-2+EN 60950	

Specifications

				BVM-D9H1E	BVM-D9H5E
General	Signal format			15.625 kHz to 45 kHz (For more details, please refer to the Acceptable Formats table.)	
	Type			Display unit	Stand-alone monitor
	Power requirements			100 to 240 V AC ± 10%, 50/60 Hz	
	Power consumption (with options)			60 W (85 W max.)	
	Dimensions		mm	217 (W) × 174 (H) × 417.9 (352.5)*1 (D)	217 (W) × 217 (H) × 417.9 (352.5)*1 (D)
			inches	8 5/8 × 6 7/8 × 16 1/2 (14)	8 5/8 × 8 5/8 × 16 1/2 (14)
	Mass			approx. 8.1 kg (17 lb 13 oz), 8.9 kg (19 lb 9 oz)*2	approx. 9.3 kg (20 lb 7 oz), 10.1 kg (22 lb 4 oz)*2
	CRT	CRT type		9-inch HR Trinitron	
		AG pitch		0.25 mm, 70° deflection, Ø 21.6 mm in-line gun	
		Visual screen (Viewable area, measured diagonally)	mm 4:3	155.4 (W) × 115 (H), (190.7)	
			mm 16:9	155.4 (W) × 87.4 (H), (178)	
			inches 4:3	6 1/8 × 4 5/8, (7 5/8)	
			inches 16:9	6 1/8 × 3 1/2, (7 1/8)	
		Phosphor		P-22	
Inputs/Outputs	Video			BNC × 3, with loop-through, 75 Ω auto terminated	
		GBR		1.0 Vp-p ±6 dB, positive	
		Y		1.0 Vp-p ±6 dB, high impedance	
		PB/PR		0.7 Vp-p ±6 dB, high impedance	
	Ext sync			BNC × 1, with loop-through, 75 Ω auto terminated	
		Composite		0.3 to 8.0 Vp-p, high impedance, tri-level bipolar sync	
	Remote	OPTION		RS-232C for BKM-11R Mini DIN 8-pin	
		CONTROL UNIT		D-sub 9-pin (RS-485/422 switchable)	Not Applicable
		REMOTE 1/Serial remote		RS-485 serial interface, D-sub 9-pin, with loop-through	
		REMOTE 2/Parallel remote 1		D-sub 9-pin × 1 (Short to ground)	
		Parallel remote 2		Modular connector 6-pin	
		ISR		Not Applicable	
Video signal performance	Differential gain (DG)			Within 5% for luminance from 0 to 100 cd/m²	
	Differential phase (DP)			Within 5° for luminance from 0 to 100 cd/m²	
	Frequency response			48 Hz to 17 MHz +0 dB/-3 dB	
	DC restoration .			Back porch type, back porch level: within 1% of peak luminance, 10 to 90% APL	
Synchronization	Retrace time	Horizontal		under 3.77 µsec	
		Vertical		under 650 µsec	
Raster and picture performance	Normal scan			5% over scan of the effective picture area	
	Under scan			3% under scan of the effective picture area	
	Linearity			Less than 2.0% within circle centred on the screen with a diameter equal to the vertical height	
	Colour temperature			D65/D93/COL 1/COL 2 (User adjustable)	
	Convergence			Less than 0.4 mm within circle centred on the screen with a diameter equal to the vertical height, 0.5 mm at any other point	
	Preset brightness			120 cd/m² (35 fL) (when a 1.0 Vp-p 100% white signal is input)	
	Stability of raster size			1% of picture height (at 120 cd/m² peak luminescence, 10 to 90% APL)	
	Scan delay	Horizontal		Approx. 1/4 line	
		Vertical		Approx. 1/2 field	
	Centre resolution			16:9 340 TV lines, 4:3 450 TV lines	
Operating conditions	Operating temperature			0 to 35°C (32 to 95°F) Optimum operating range 20 to 30°C (68 to 86°F)	
	Storage temperature			-40 to 40°C (14 to 104°F)	
	Humidity			30 to 85 % (no condensation)	
Others	Supplied accessories			4:3 mask, AC cable, AC plug holder, AC adaptor, Tally label, Operation manual	
	Regulation compliance			EN 60950 (TÜV GS), CE: EN 55103-1+EN 55103-2+EN 60950	

*1 Depth without AC adaptor.
*2 Mass with AC adaptor.

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